WHALE TAKE REDUCTION GEAR OPTIONS

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PICTURES 1 – 8: METHODS TO ATTACH BUOY LINES TO OFF-THE-SHELF WEAK LINKS

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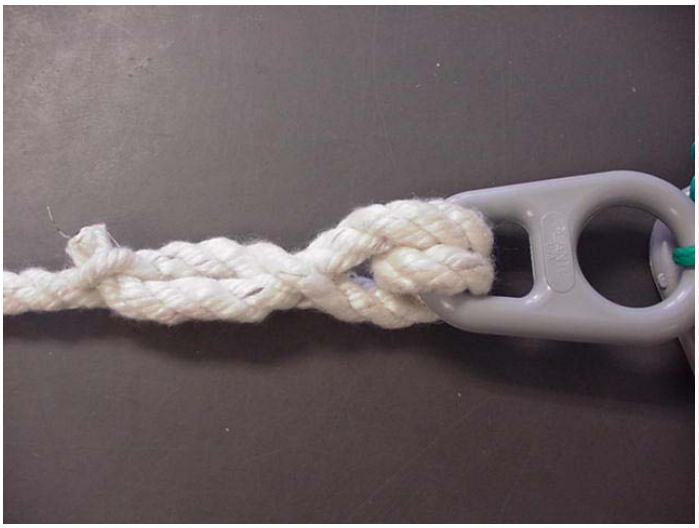

Pictures 1 – 4: Attaching the buoy line to an off-the-shelf weak link using a spliced, tucked or hog-ringed eye will produce a knotless bitter end to the line when the weak link parts.

 For more information contact the NMFS Gear Research Team: John Higgins (207) 677-2316, the Dept. of Marine Resources – Laura Ludwig (207) 633-9513, or your area Marine Patrol Office – Boothbay Hbr (207) 633-9595 - Lamoine Office (207) 667-3373 – OPTIONS AVAILABLE AS OF FEBRUARY 15, 2003

5.

6.

Pictures 5 & 6: Tying to the weak link with a clove hitch or cow hitch and then splicing or tucking the bitter end of the buoy line under a strand will also produce a knotless system when the weak link parts.

7.

Picture 7: Tying to the weak link with a clove hitch and then tucking the bitter end of the buoy line under a strand will also produce a knotless system when the weak link parts. A loop can be fastened to the strong side of the weak link allowing a fisherman to easily remove the buoy.

8.

Picture 8: Another off-the-shelf weak link is the slip link, which works on the same principle as a jam cleat.

PICTURES 9 – 14: METHODS OF USING HOG RINGS TO ACHIEVE A SUITABLE WEAK LINK

9.

Picture 9: When threading the buoy line only once through the buoy becket/spindle, up to 7 hog rings may be used to create a weak link no greater than 600 lbs, and up to 5 hog rings used to create a weak link not exceeding 500 lbs.

11.

Picture 11: When connecting to the eye of a buoy spindle, a knot may be used on one side of the eye as shown, allowing for easy buoy removal. When threading the buoy line only once through the buoy becket/spindle or through the loop, up to 7 hog rings may be used to create a weak link no greater than 600 lbs and up to 5 hog rings used to create a weak link not exceeding 500 lbs.

10.

Picture 10: A buoy line can also be passed through the buoy spindle/becket/swivel two times, not forming a knot, and hog-ringed back on itself up to 3 times forming a weak link, meeting the 600 lb requirement.

12

Picture 12: A buoy becket-type weak link can be made using no more than 7 hog rings to create a weak link less than or equal to 600 lbs, and no more than 5 hog rings to create a weak link less than or equal to 500 lb weak link. When using this hog ring buoy becket-type weak link, the buoy line must pass through the hog-ringed eye only once and be tucked, spliced or hog ringed back to itself, making a knotless eye.

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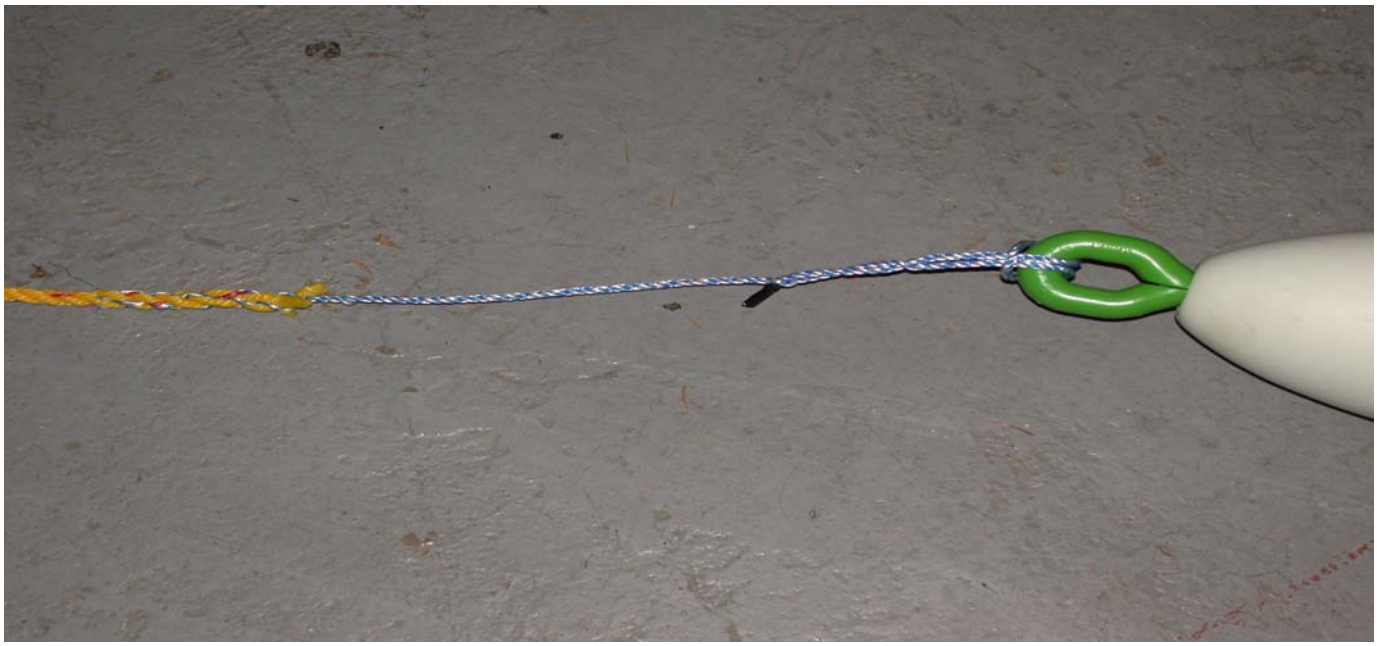
13.

Picture 13: A buoy line can be laid alongside a short lead and hog-ringed to form a weak link. 11 hog rings produced a breaking strength of 345 lbs as tested by the NMFS engineer.

14.

Picture 14: To produce a weak link from a short length of line, the line is formed into a loop with its ends overlapped and hog-ringed to each other. Five hog rings form a suitable 600 lb weak link, while four are sufficient for a 500 lb weak link. The buoy line can be passed through the loop only once, then spliced, hog-ringed or tucked back on itself to make a knotless connection.

15.



Picture 15: Another weak link technique is a spliced jumper. The jumper line is selected based on breaking strength data from the manufacturer. The failure of this jumper line must result in a knotless bitter end. Testing by NMFS Gear Research Team can make this determination.

16.

Picture 16: Another type of weak link can be created by stapling a rope to a wooden buoy stick to form an eye for the buoy line attachment. However, these must be tested by the NMFS Gear Research Team to ensure that they will release in the proper fashion and within the required limits. When using this method, the buoy line can only be attached by passing the end of it through the eye on the buoy stick once and bringing it back and splicing, tucking or hog ringing to form an eye.

17.

Picture 17: Some swivels can be modified to conform to the weak link requirement by compromising their strength where the buoy line attaches. However, they must be tested by the NMFS Gear Research Team to ensure that they will release in the proper fashion and within the required limits.